

# Perma-Top\*

- spark arresters
- chimney tops
- fly-ash chambers

acid-proof

heat-resistant

non-corrosive

*for incinerators • chimneys*  
*heating units • fireplace flues*



and

- incinerators

industrial • commercial •  
 institutional

## The Perma-Top Company

410 Shadyhill Road • Pittsburgh 5, Pa.

RECEIVED

\*U. S. Patent No. 2598608

FEB 9 1966

Member Air Pollution Control Association

VICTOR IRON WORKS



# Perma-Top

## spark arresters and chimney tops

Perma-Top Chimney Tops and Spark Arresters eliminate the recurring expense of replacing tops and arresters which corrode and fail to give adequate protection against the danger of flying sparks from incinerators, heating units and fireplace flues.

The unique feature which makes Perma-Top different from ordinary chimney tops is the scientifically planned perforations in the sides and top which permit the gradual escape of heat, gases, and fly ash. The size and number of the perforations are accurately proportioned to the chimney area to assure optimum draft, without flying sparks.

Perma-Top Spark Arresters are illustrated; Chimney Tops are similar but have a closed (solid) top to eliminate down drafts and to exclude rain.

All lids are removable should unusual conditions necessitate cleaning. Special Clog-Proof models are available for high-rise buildings. All Spark Arresters and Chimney Tops are shipped knocked down for easy shipping, storage, and handling. The interlocking pieces are easily assembled on the job.

**EFFICIENT:** The elimination of down drafts and excessive drafts help maintain constant stack temperatures thereby permitting efficient and economical operation of heating equipment. Reduces heating costs by as much as 11%.

**FIRE PROTECTION:** Perforations break the force of upward air currents and the danger of flying sparks; they also prevent down drafts with resulting fire hazards and assure constant updraft regardless of wind direction.

**ECONOMICAL:** Perma-Tops eliminate costly replacement; fire clay is indestructible.

**ATTRACTIVE:** The neat appearance of Perma-Tops and the round, rectangular or conical shapes make a pleasing finish to any chimney and are adaptable to any style or architecture. Select chimney tops with a free area at least 20% greater because tops are closed (solid).

### APPROVALS

Pittsburgh Bureau of Smoke Prevention

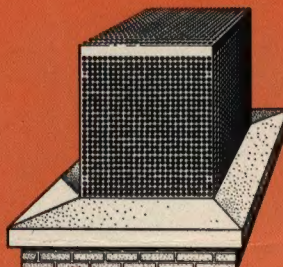
New York City Board of Standards & Appeals

New York City Div., N. Y. Fire Insurance Rating Org.

of aluminum . . .

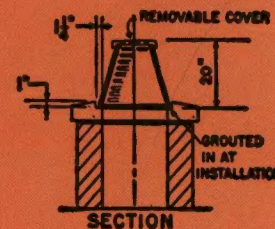
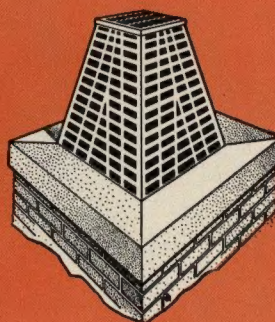
Made from high temperature aluminum alloy these spark arresters are lightweight and very attractive. They are shipped in unbreakable sections which are easy to assemble and install.

### square



| size      | height | shipping weight |
|-----------|--------|-----------------|
| 13" x 13" | 24"    | 30 lbs.         |
| 18" x 18" | 24"    | 40 lbs.         |
| 20" x 20" | 24"    | 50 lbs.         |
| 24" x 24" | 24"    | 60 lbs.         |
| 30" x 30" | 30"    | 80 lbs.         |
| 36" x 36" | 36"    | 95 lbs.         |
| 48" x 48" | 30"    | 150 lbs.        |

### conical



| size      | height | shipping weight |
|-----------|--------|-----------------|
| 21" x 21" | 21½"   | 50              |
| 24" x 24" | 21½"   | 60              |
| 30" x 30" | 21½"   | 70              |

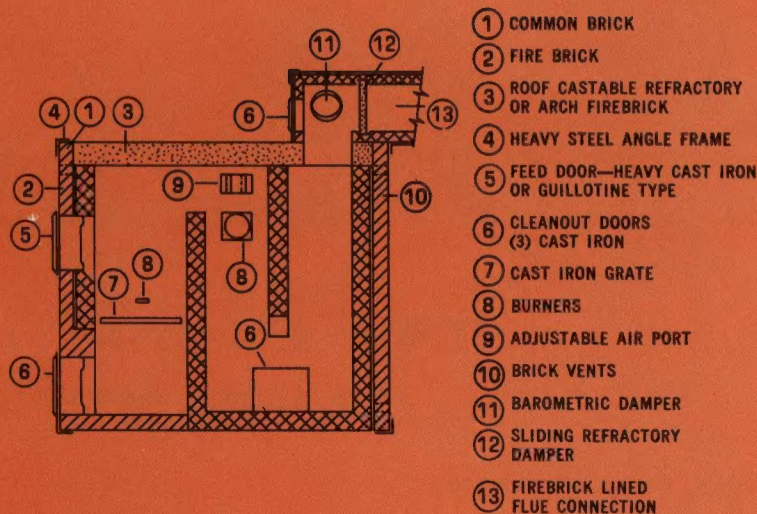
## The PERMA-TOP INCINERATOR for industrial and commercial use

The Perma-Top Company with its long experience in smoke, fly ash, and draft control problems and after years of testing presents the PERMA-TOP INCINERATOR. This incinerator features an extra large secondary chamber with its own burners to provide for more complete combustion of flue gases, and to provide a larger area for depositing fly ash. The larger secondary combustion chamber with its adjustable airport, together with a barometric damper and a sliding refractory damper in the flue gives complete draft control.

Other considerations in the design of this incinerator were easy feeding, easy removal of ashes and soot, and easy access to grates for replacement.

The Perma-Top Incinerator is engineered to be job-built with plans and parts furnished by The Perma-Top Company. It can be located either in a boiler room, outside against the wall of a building, or outside free-standing.

We are very proud of the many installations we have made, see partial list on back cover, and particularly those made in Allegheny County, Pennsylvania where the requirements for approval are the most exacting in the nation.



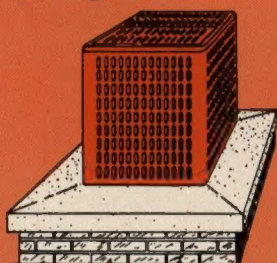
- ① COMMON BRICK
- ② FIRE BRICK
- ③ ROOF CASTABLE REFRACTORY OR ARCH FIREBRICK
- ④ HEAVY STEEL ANGLE FRAME
- ⑤ FEED DOOR—HEAVY CAST IRON OR GUILLOTINE TYPE
- ⑥ CLEANOUT DOORS (3) CAST IRON
- ⑦ CAST IRON GRATE
- ⑧ BURNERS
- ⑨ ADJUSTABLE AIR PORT
- ⑩ BRICK VENTS
- ⑪ BAROMETRIC DAMPER
- ⑫ SLIDING REFRACTORY DAMPER
- ⑬ FIREBRICK LINED FLUE CONNECTION



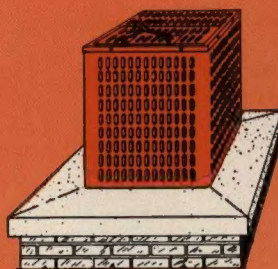
## of fire clay . . .

Die pressed from specially formulated Fire Clay and vitrified at high temperatures, these units are guaranteed for the life of the chimney. They are acid proof, non-corrosive, heat resistant, impervious to moisture, resistant to thermal or chemical reactions caused by flue flame or combustion gases and have no laminations to become separated.

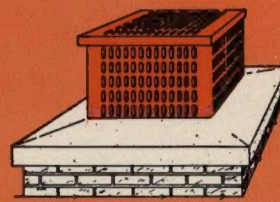
### rectangular



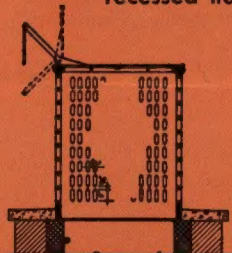
**type A**  
recessed lid



**type B**  
hinged cast iron lid



**type R**  
overhanging lid

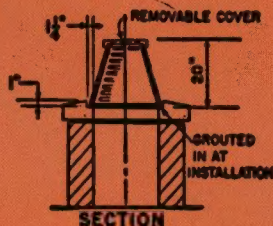
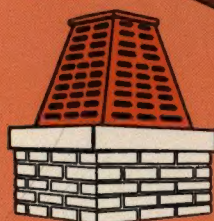


| outside dim.<br>in<br>inches | free area<br>in sq. inches |             | approx.<br>wt.<br>per<br>foot | thk.<br>in<br>inches |
|------------------------------|----------------------------|-------------|-------------------------------|----------------------|
|                              | 24"<br>high                | 30"<br>high |                               |                      |
| 13 x 13                      | 210                        | ....        | 35 lbs.                       | 3/8                  |
| 18 x 18                      | 424                        | 502         | 70 lbs.                       | 1 1/4                |
| 20 x 20                      | 580                        | 680         | 103 lbs.                      | 1 3/8                |
| 24 x 24                      | 744                        | 867         | 115 lbs.                      | 1 1/2                |
| 30 x 30                      | 1250                       | 1345        | 129 lbs.                      | 1 1/2                |

### conical

(overhanging lid)

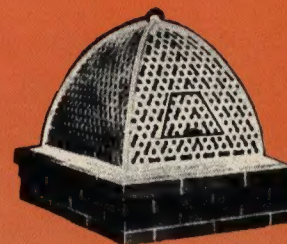
For building four stories or less



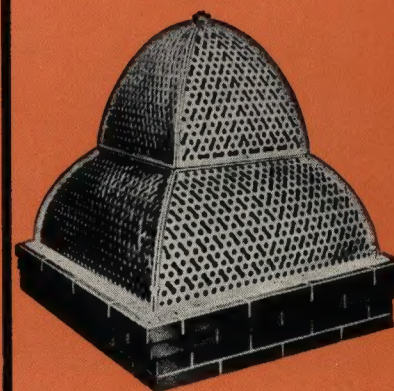
| outside dimensions<br>inches | free area in sq. inches |
|------------------------------|-------------------------|
|                              | 20" high                |
| 20 x 20                      | 249                     |
| 24 x 24                      | 291                     |
| 30 x 30                      | 412                     |

## Perma-Top Spark Arresters

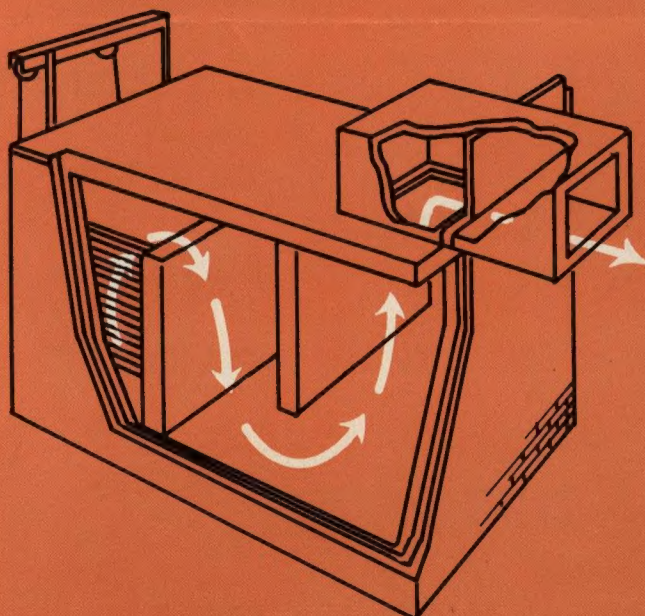
of cast iron



for 13 x 13 flue



for 24 x 24 flue



| Model No. | Primary Combustion Area (Sq. Ft.) | Capacity in Lbs. per Hour Type 2 Waste | Fire Door Size | Ash Door Size | Number and Size of Grates         | Incinerator Size |         |        | Primary Combustion Chamber Size | Full Size Recommended | Walls (Thickness) |            |
|-----------|-----------------------------------|--|----------------|---------------|-----------------------------------|------------------|---------|--------|---------------------------------|-----------------------|-------------------|------------|
|           |                                   |  |                |               |                                   | Wth.             | Lgth.   | Hgt.   |                                 |                       | Fire Brick        | Insulation |
| 50S       | 2.72                              | 50                                     | 18 x 14        | 14 x 11       | 1-15 1/2" x 15 1/2"               | 2'-6"            | 5'-0"   | 4'-0"  | 1'-5" x 11"                     | 12 x 12               | 2 1/2"            | 1"         |
| 100S      | 4.15                              | 100                                    | 18 x 14        | 14 x 11       | 2- 9 1/2" x 20"                   | 3'-3"            | 6'-5"   | 5'-10" | 1'-11" x 2'-2"                  | 12 x 12               | 4 1/2"            | 1"         |
| 125S      | 6.25                              | 125                                    | 22 x 17        | 18 x 14       | 2-14" x 27"                       | 3'-5"            | 6'-11"  | 6'-6"  | 2'-6" x 2'-6"                   | 12 x 12               | 4 1/2"            | 1"         |
| 200S      | 13.0                              | 200                                    | 30 x 24        | 18 x 14       | 2-14" x 27"                       | 5'-3"            | 8'-0"   | 7'-0"  | 3'-0" x 4'-4"                   | 18 x 18               | 4 1/2"            | 2"         |
| 300S      | 16.64                             | 300                                    | 30 x 24        | 18 x 14       | 2-14" x 27"                       | 5'-8"            | 12'-0"  | 7'-0"  | 4'-0" x 4'-2"                   | 18 x 18               | 9"                | 2"         |
| 400S      | 16.26                             | 400                                    | 30 x 24        | 18 x 14       | 4-14" x 27"                       | 4'-2"            | 12'-0"  | 8'-0"  | 3'-0" x 5'-5"                   | 18 x 18               | 4 1/2"            | 2"         |
| 500S      | 19.26                             | 500                                    | 30 x 24        | 18 x 14       | 4-14" x 27"                       | 4'-2"            | 13'-0"  | 8'-0"  | 3'-0" x 6'-5"                   | 18 x 24               | 4 1/2"            | 2"         |
| 650S      | 32.0                              | 650                                    | 36 x 36        | 18 x 14       | 14 grates 1' x 2' or solid hearth | 9'-8"            | 12'-11" | 7'-2"  | 4'-0" x 8'-0"                   | 2'-6" x 2'-6"         | 9"                | 2"         |

"S" denotes steel jacket casing. "B" denotes brick exterior.

Above models also available with common brick exterior. Add 8" to width and length for size of models 50 thru 300 and add 16" for other models. Flue fed models also available.



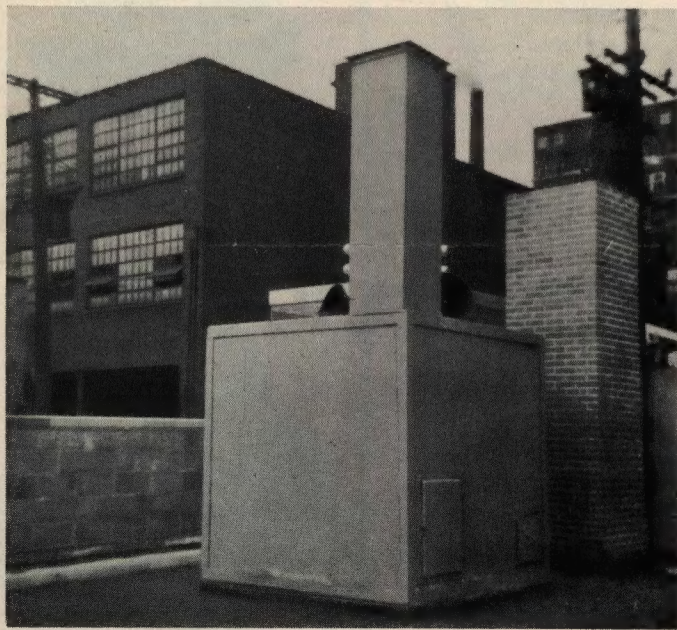
# Perma-Top fly ash chambers

## to prevent back pressure of smoke and fire on hopper doors

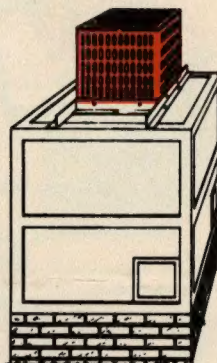
The design of a fly-ash chamber is a very important part of the solution of flue-fed incinerators. Fly-ash chambers can be designed to fit existing conditions as well as new.

The Perma-Top Company can design and build fly-ash

chambers from Johns-Manville non-rusting Transite, metal or masonry to meet any conditions. Further information on request.

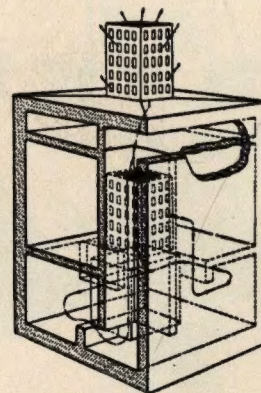


Perma-Top fly-ash Chamber made of non-rusting Johns-Manville Transite. Note handsome appearance.



Cut-a-way drawing of a typical fly-ash settling chamber which has been approved by the strictest smoke control bureaus in the nation. This chamber is made of masonry.

This fly-ash chamber is made of non-rusting Johns-Manville Transite on a galvanized metal frame. It is very light in weight and less expensive than masonry.



## few representative Perma-Top Installations

Allegheny County  
Institution District  
Pittsburgh, Pennsylvania

Atomic Energy  
Proving Grounds  
Los Alamos, New Mexico

Boston Housing Authority  
Boston, Massachusetts

Buffalo Housing Authority  
Buffalo, New York

Camden Housing Authority  
Camden, New Jersey

Detroit Housing Authority  
Detroit, Michigan

Elmira Housing Authority  
Elmira, New York

Fall River Housing Authority  
Fall River, Massachusetts

Harrison Housing Authority  
Harrison, New Jersey

Harry Truman Library  
Independence, Missouri

Housing Authority of the  
Township of North Bergen  
North Bergen, New Jersey

Jersey City  
Housing Authority  
Jersey City, New Jersey

Memphis Housing Authority  
Memphis, Tennessee

National Capital  
Housing Authority  
Washington, D. C.

New York City  
Housing Authority  
New York, New York

Paterson Housing Authority  
Paterson, New Jersey

Trenton Housing Authority  
Trenton, New Jersey

Upjohn Company  
Kalamazoo, Michigan

University of Michigan  
Biological Research Center  
Gull Lake, Michigan

Worcester Housing Authority  
Worcester, Massachusetts

Yonkers Housing Authority  
Yonkers, New York

## incinerator installations

Pittsburgh Housing Authority  
Pittsburgh, Pennsylvania

Women's and Men's  
Dormitory  
Carnegie Institute  
of Technology  
Pittsburgh, Pennsylvania

Pittsburgh Hospital  
Pittsburgh, Pennsylvania

Montefiore Hospital  
Pittsburgh, Pennsylvania

Men's Dormitory  
Duquesne University  
Pittsburgh, Pennsylvania

A & M Supermarket  
New Castle, Pennsylvania

Mt. Vernon Elementary School  
McKeesport, Pennsylvania

Buffalo Housing Authority  
Buffalo, New York

Bristol Apartments  
Pittsburgh, Pennsylvania

Boston Housing Authority  
Boston, Massachusetts

when others fall, call

# The Perma-Top Company

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Pittsburgh 5, Pa.

Phone WALnut 1-2842



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